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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,355

03/16/2006

Kay Wagner

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EXAMINER

FISCHER, JUSTIN R

ART UNIT

PAPER NUMBER

1791

NOTIFICATION DATE

DELIVERY MODE

07/29/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,355	<b>Applicant(s)</b> WAGNER, KAY	
	<b>Examiner</b> Justin R. Fischer	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-16 are rejected under 35 U.S.C. 103(a) as obvious over Kajikawa (US 5058646). As best depicted in Figure 1, Kajikawa is directed to a runflat tire construction comprising a multi layered belt, a casing, a pair of sidewalls, and a reinforcement assembly (A1,A2, and A3). In particular, the combination of A1 and A3 represent the claimed reinforcing profile and A2 represents the claimed core profile. The reference further teaches that A1 and A3 are formed of a softer rubber composition, as compared to component A2. However, the ends of A1 and A3 are not contiguous with one another and thus, the "reinforcing profile" is not crescent-shaped. A fair reading of Kajikawa, however, suggests the general placement of a soft rubber layer on the inside and outside of the core profile in order to, among other things, alleviate local compressive strain and relax shearing strain (Column 4, Lines 14-37). One of ordinary skill in the art at the time of the invention would have found it obvious to position the soft rubber layers A1 and A3 over the entire surfaces of the core profile A2 and thus form a crescent-shaped profile that encloses said core profile. It is emphasized that Kajikawa is silent as to the specific arrangement of the soft rubber layers (other than they are inside and outside of the core profile)- the particular placement of the respective layers

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over the entire surfaces of the core profile would have optimized the benefits detailed above. Lastly, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed arrangement.

Regarding claim 8, the reinforcing profile and core profile have essentially the same cross-sectional shape as required by the claimed invention.

As to claims 9 and 10, the claim requires that the core profile have an extension equal to at least 30% of the reinforcing profile- such is the case with the tire construction of Kajikawa. Furthermore, regarding claim 10, one of ordinary skill in the art at the time of the invention would have found it obvious to form the reinforcement assembly of Kajikawa in accordance to the claimed invention (make core profile smaller than radial extension of reinforcing profile), there being no conclusive showing of unexpected results.

With respect to claims 11 and 12, the reinforcing profile of Kajikawa has a hardness between 50 and 70, which substantially encompasses the broad range of the claimed invention.

Regarding claims 13 and 14, the core profile of Kajikawa has a hardness between 70 and 90, which substantially encompasses the broad range of the claimed invention.

As to claim 15, the core profile of Kajikawa has a modulus between 3 and 7 N/mm<sup>2</sup> and the reinforcing profile has a modulus between 1 and 3 N/mm<sup>2</sup>. While the claims require a minimum modulus (for the core profile) of 8 N/mm<sup>2</sup>, the disclosed ranges of Kajikawa appear to be preferred ranges- one of ordinary skill in the art at the

time of the invention would have found it obvious to use additional rubber compositions having a modulus on the order of that disclosed by Kajikawa, such as those required by the claimed invention. It is emphasized that the particular modulus of the core profile is a function of the specific tire being reinforced and the additional tire structure (some tires may need greater amounts of runflat reinforcement due to road conditions and/or environment of use). Furthermore, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed range.

### ***Response to Arguments***

3. Applicant's arguments filed April 25, 2008 have been fully considered but they are not persuasive.

Applicant initially argues that the Examiner's proposed modification of Kajikawa would render Kajikawa unsatisfactory for its intended use. Applicant further contends that if the soft rubber layers are enlarged, the minimum thickness of the tire will not be at position E between the outer edge point A and the 65% height B, thus decreasing the tire's high speed durability.

As detailed above, Kajikawa suggests the general placement of a soft rubber layer on the inside and outside of the core profile in order to, among other things, alleviate local compressive strain and relax shearing strain (Column 4, Lines 14-37).

While the figures fail to depict an embodiment in which the core profile is enclosed by a reinforcing profile, one of ordinary skill in the art at the time of the invention would have found it obvious to extend the inner and outer soft rubber layers to form an "enclosed" assembly. It is emphasized that the respective layers A1 and A3 are described as

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being relatively thin layers (Column 4, Lines 15+) and thus would not be expected to significantly contribute to the overall sidewall thickness. Additionally, in such a modification, the ends of layers A1 and A3 would be tapered and define a crescent shaped layer in an analogous manner to layer A2. Thus, it appears that the thinnest parts of A1 and A3 would remain in the region where Kajikawa desires a minimum thickness. Lastly, it is noted that the overall sidewall thickness is a combination of the thickness of the sidewall reinforcing layers (A1-A3) and the thickness of the sidewall rubber- one of ordinary skill in the art at the time of the invention would have been able to modify the thickness of the sidewall rubber to maintain the desired minimum thickness position (if needed). It is emphasized that Kajikawa generally teaches the inclusion of an innermost and outermost soft rubber layer to obtain the aforementioned benefits without specifically describing the location of such layers- one of ordinary skill in the art at the time of the invention would have been able to appropriately position such layers in accordance to the claimed and maintain the desired region of minimum thickness.

Regarding claim 16, applicant argues that the Examiner did not specifically address claim 16. However, the claim requires nothing more than the structure required by the article claims previously addressed- the claims as currently drafted do not require that the core profile is enclosed by a reinforcing profile prior to be arranged on a building drum.

As to claim 10, applicant contends that decreasing the size of the core profile would render Kajikawa unsatisfactory for its intended use of maintaining runflat

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performance. The examiner respectfully disagrees. The general inclusion of a runflat insert or hard core profile is well recognized as contributing to improved running during an under inflated condition. There is nothing in Kajikawa that teaches a specific dimension for the inner and outer layers (reinforcing profile) and/or the intermediate layer (core profile) and thus, it is unclear how the modified structure would render the reference unsatisfactory for its intended use. It is emphasized, as detailed above, Kajikawa suggests the general placement of a soft rubber layer on the inside and outside of a core profile in order to, among other things, alleviate local compressive strain and relax shearing strain (Column 4, Lines 14-37)- in modifying the depicted assembly of Kajikawa in accordance to the claimed invention, the above noted benefits would similarly be achieved (remains consistent with the teachings of Kajikawa).

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin R. Fischer whose telephone number is (571) 272-1215. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin Fischer  
/Justin R Fischer/  
Primary Examiner, Art Unit 1791  
July 24, 2008